Fostering Educational Growth Through Design: Wyneken Memorial Lutheran School Renovation

An Honors Thesis (HONR499)

by

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Thesis Advisor

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Signed

Ball State University

Muncie, Indiana

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Expected Date of Graduation

May 2016

Abstract

Elementary schools are the environments that shape children's minds and build the foundation of their knowledge. The interior of the education facility can have a great impact on the effectiveness of the teaching and level of student development. Many facilities, such as Wyneken Memorial Lutheran School, have not been fully remodeled to current guidelines. Renovating this elementary school and relocating certain classrooms and activity areas can have a positive impact on the experience had by the faculty and students. The Wyneken facility was examined and research was conducted through the program outlined in this binder. New design concepts were created based on the findings of the programming design phase. The final design concept includes plans for new and additional furniture, new color palettes, materials, and lighting, and also construction drawings which would be used to direct the new construction and renovations of this building.

Acknowledgements

I would like to thank Professor Reza Ahmadi for his continual advisement of this project and his instruction throughout my four years at Ball State University.

I would also like to thank Daniel Bultemeyer, Principal; Janine Albert, Pre-Kindergarten teacher; and the remainder of the faculty and staff at Wyneken for their cooperation and participation in collecting information for the programming phase and guiding the decisions for a new design.

Author's Statement

The purpose of this project for Wyneken Memorial Lutheran School was to renovate their space and provide them with a facility that will be able to foster educational growth. This program is a collection of activities and information that are compiled to serve as a base for the construction plans for the renovated school. The following methodologies listed here are the main ways that information was collected before the design began.

Site Visit and Observation
Observed the school facility while conducting a walk through. I recorded the issues I saw that need to be addressed in the project

Client Needs Assessment
Interviewed teachers and other employees to determine their needs and issues with the space. i also observed the students as they traveled throughout the school and recorded additional needs that they had as users of the space.

Values and Issues Analysis
Created a list of issues and values based on observations and interviews. These lists will be used to guide the design of the classrooms and other spaces and ensure that they meet the needs of the occupants.

Client Interview
Asked questions of faculty to determine their needs for the space. I also spoke with the principal to gather his opinions of what spaces could be improved, and where he sees the school progressing. This future needs assesssment will

Literature Reviews
Conducted research on other school facilities and considerations for elementary school design. Many different articles, books, and websites were used as references in guiding the design of Wyneken Elementary spaces.

Precedent Studies
Observed and studied precedent facilities similar to Wyneken Memorial Lutheran School. I found photos of classrooms, libraries, common areas, and resource rooms in elementary schools around the country. These case studies and successful schools gave me inspiration and evidence for design decisions.

Photo Observation Studies
Gathered and analyzed inspirational photos. These inspirational photos provided many ideas for space planning and furniture layouts, as well as color and use of materials.

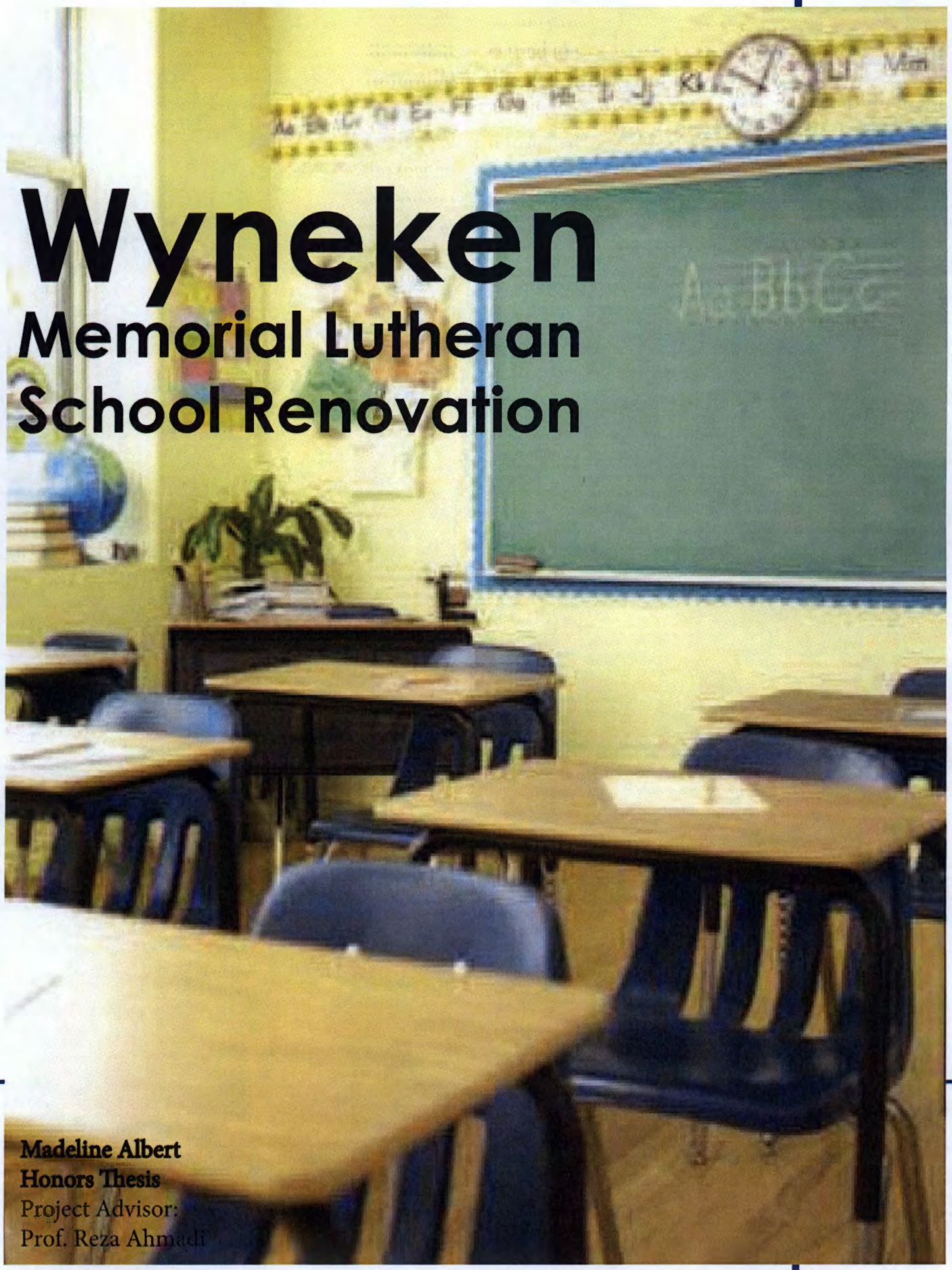
Behavioral Mapping

Studied a similar facility to observe traffic patterns and user behaviors. I chose to study the Whitinger Business Building on Ball State University campus because it is also a large educational facility with traffic patterns similar to that of Wyneken.

Prototypical Sketching

Created preliminary sketches of the floor plan to be used to adapt the spaces. Planning the use of the spaces and the amount and type of furniture that will be used is a more accurate way to plan the necessary square footage of each space.

After all this information was collected, it was compiled into the document in this binder which is referred to as the program. When the programming phase was completed, the design phase began, which led to the creation of design boards to illustrate the new color palettes, materials, and lighting. These design boards also include the floor plans to demonstrate where certain rooms have been relocated to and also new furniture and design elements in each space. These design boards, floor plans, and many more construction documents created for the Wyneken Memorial Lutheran School building renovation can be found on the enclosed CD.



Wyneken
Memorial Lutheran School Renovation

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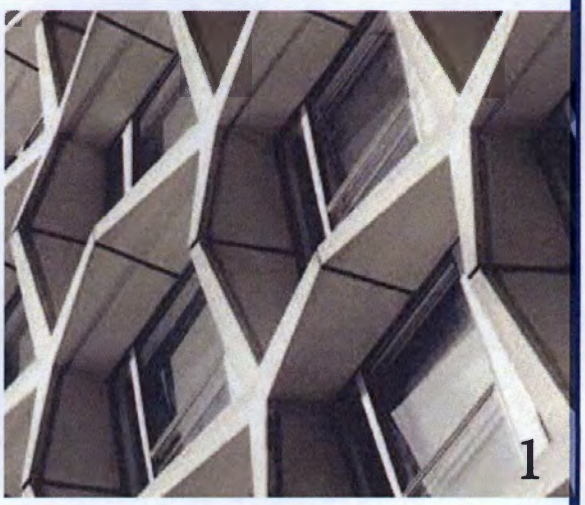

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Wyneken Memorial Lutheran School

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Directory

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Wyneken Memorial
Lutheran School

"Through Jesus Christ, it is the misson of Wyneken Memorial Lutheran School to REACH children with the love of Christ, TEACH them of God's Word and world, and SEND them out as faithful stewards in God's Kingdom."

The school is located in rural Adams County and serves the families of the 3 supporting churches. The facility offers educational programs for children Pre-School to 8th grade, a Day Care facility, and many sports and musical programs.

Wyneken's Mission

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Decatur

City in Indiana

Decatur is a city in Root and Washington townships, Adams County, Indiana, United States. It is the county seat of Adams County, and a medium sized city with a median household income of $37,234.

Area: 5.792 sq miles (15 km²)

Weather: 42°F (6°C), 87% Humidity

Population: 9,418 (2013)

Wyneken

Students and Faculty

Total Students Enrolled: 190

Total Full Time "Equivalent" Teachers: 11.8

Full-Time Teachers: 9

Part-Time Teachers: 6

Average Student-To-Teacher Ratio: 14.6

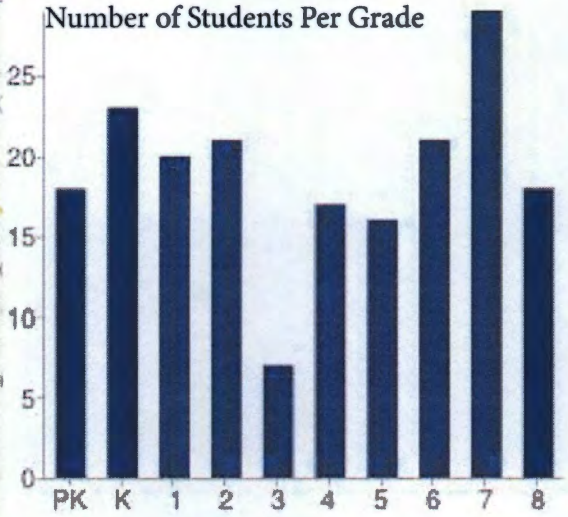
Percent Minority Students: 3.2%

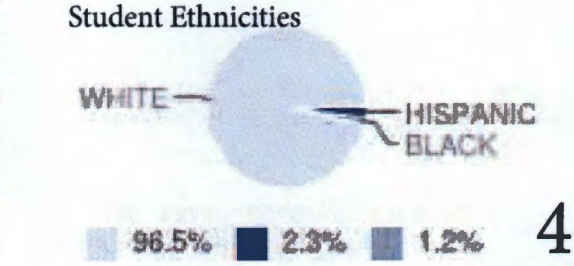
Students Gender Breakdown

Males: 84 (44.2%)

Females: 106 (55.8%)

DEMOGRAPHICS





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Project Introduction and Methodology

Wyneken Memorial Lutheran School

Scope of Work	August 2014				September 2014				October 2014				November 2014			
	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4
Programming																
Schematic Design																
Design Development																
Construction Documents																
Bidding																
Construction																

Scope of Work	December 2014				January 2015				February 2015				March 2015			
	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4
Programming																
Schematic Design																
Design Development																
Construction Documents																
Bidding																
Construction																

Scope of Work	April 2015				May 2015				June 2015				July 2015			
	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4
Programming																
Schematic Design																
Design Development																
Construction Documents																
Bidding																
Construction																

Proposed Project Schedule

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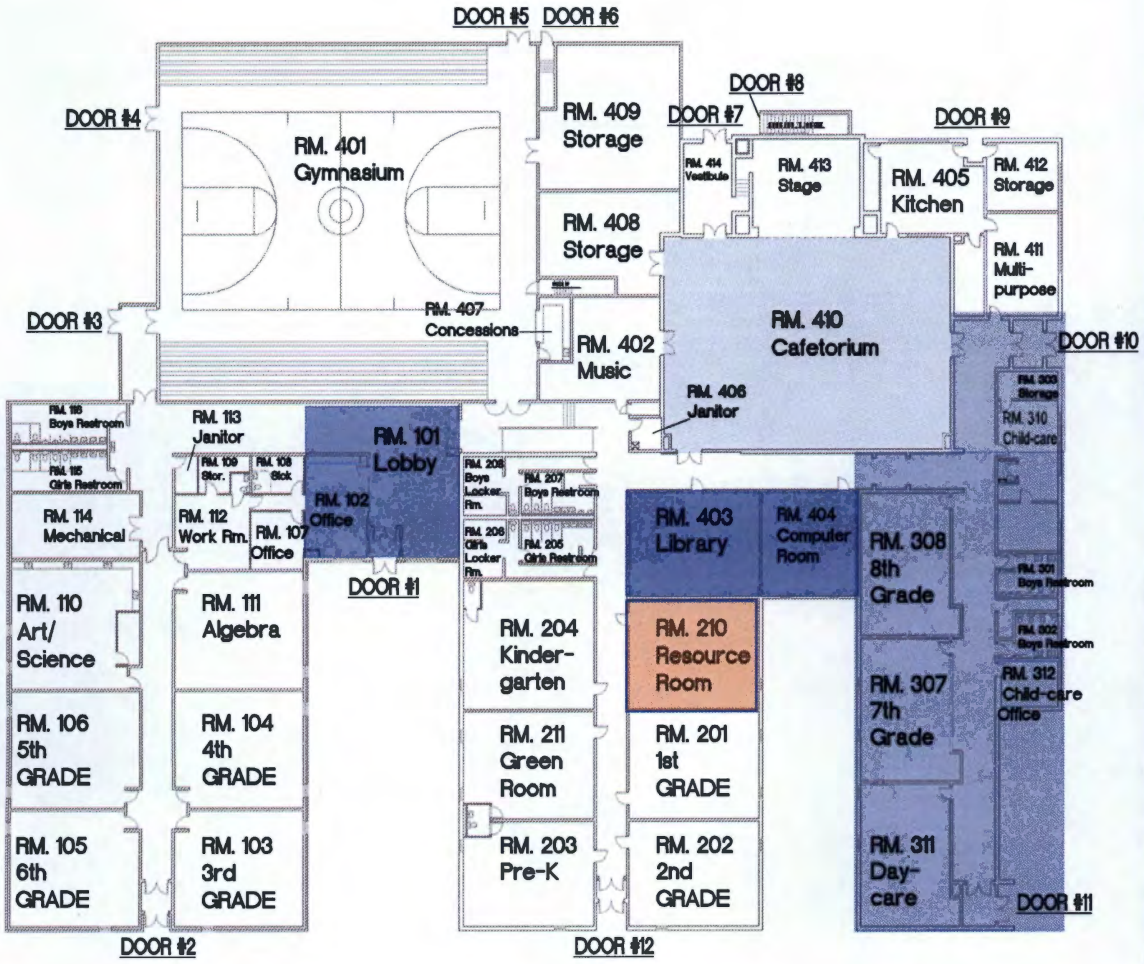

Existing Facility Floor Plan

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Wyneken Memorial Lutheran School

Pre-School/Pre-K Classroom

Cafetorium

1st Grade Classroom

Main Entrance and Exterior

Restrooms

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Existing Facility Images

Wyneken Memorial Lutheran School

This facility, at over 70,000 SF, has been innovatively designed to allow for the future expansion. Large common use spaces - cafeteria, gym, and media center - are centrally located, creating a crossroads of accessibility and curriculum for the shared value of both. Designers and educators came together to create a dynamic palette of interior finishes, selected to engage the students in their environment.

Each wing of the building is designated with its own accent color to assist in wayfinding and instill a sense of identity and individuality. As one travels through the space, they experience a gradient of colors shifting from one to the next - blue to turquoise to green as they approach their destination. The selected hues will also support healthy learning as they provide an enriching and welcoming environment that improves visual processing, reduces stress and encourages brain development.

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These photos are of the elementary school library. They have the books arranged in a very traditional manner and in linear style, but the arrangement allows for a nice storytime area. The Wyneken library is much smaller than this and does not have any open space for small children to gather, just several small tables, so that could be a nice addition.

These two shots are of the cafetorium, similar to the one in the Wyneken Elementary School. This area is here being used for a school performance with chairs in the audience area for parents, and also an educational speaker with the kids sitting at the cafeteria tables.

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	Criteria	Observation	Suggested Changes if any	Reason for change if any
1	Sight	Clear views down hallways Bright but not many views of natural light	Bring more natural light into building	A lot of the offices and almost all of the classrooms have no windows
2	Sound	No major acoustical problems but some echoing	More sound absorptive materials added to interior spaces	Sound echoes down large empty hallways
3	Smell	No unpleasant smells	No major changes needed- interior spaces could benefit from interior windows	Windows would bring in more fresh air and make the space more pleasant
4	Touch	Almost all of the surfaces in the spaces are smooth and laminated	Some different textures in materials	Different materials would prevent a cold clinical feel
5	Comfort issues (For example, temperature, humidity levels, drafts, glare, spaces that are too tight or too open etc.)	Humidity levels and heat can be an issue in closed door classrooms	Improved HVAC ventilation systems	Air could be stuffy at times and cooling/heating could have trouble circulating
6	Circulation	Circulation is very effective and there are wayfinding tools	No changes needed	--------
7	Available seating	Lack of seating space for students waiting for class to start	Some benches and flexible seating added	Providing seating will get students off the floor and out of the traffic flow
8	Available water fountains	Water fountains not used often but at least 1 is available on each floor	Wayfinding could be used to help locate drinking fountains	People didn't know where they were located unless they had been in the building before
9	Restrooms	Restrooms are large and an effective use of space	Additional wayfinding signage could be used to help locate restrooms also	Restrooms are not indicated on signage and not always easy to find from every part of the building

This building is located in a very shady area in the front of the site that prevents the extensive windows from taking in maximum light. The rooms on the exterior and especially in the front will have natural light and views, but all the interior rooms have no windows and very little daylight. The interior is brightly lit to make up for lack of artificial light. The building has multiple entrances and circulation is effective. The planning and layout of the building are also effective and the building is easy to navigate.

The systems used in the building are used effectively but improvements could be made in HVAC and lighting. The main issue with these systems is the differences between the hallways and classrooms. The halls are well lit and comfortable but the classrooms are more dim with less pleasant lighting, and also do not have proper circulation with the doors closed and can get very stuffy or too warm.

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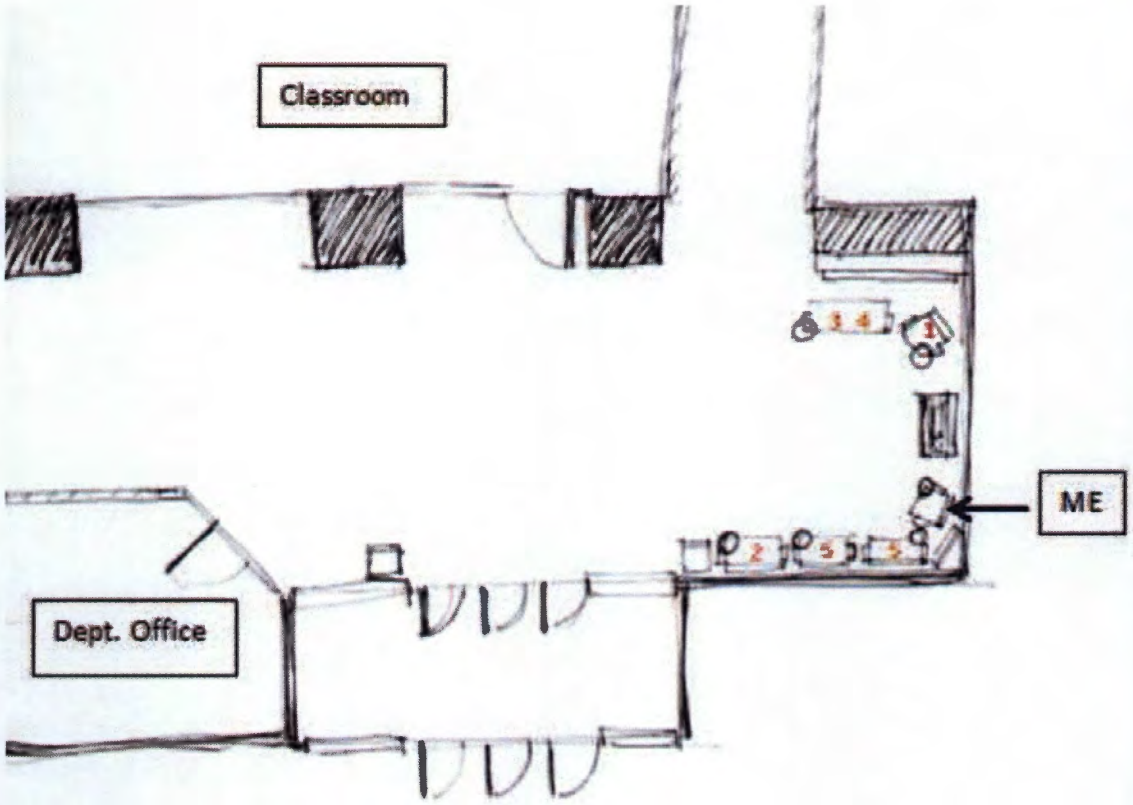

USER	LOCATION OF USER	AMOUNT OF TIME	ACTIVITIES
1. Girl- student	Corner chair	10 minutes	Reading newspaper
2. Boy- student	Double couch by window	10 minutes	Waiting for class-using phone
3. 2 girl students	Couch by display case	5 minutes	Talking about a class project
4. Girl- student	Couch by display case after #3 girls left	15 minutes	Studying and eating a snack
5. 2 girl students	Couches by windows	5 minutes	Talking-waiting for next class

Observation Information for first visit, December 2, 2014
10:00 AM- 10:30 AM

This day of observation was fairly busy even though it was a time when many people were in the middle of class. There were about 15 people who passed through the space on the way to other classrooms, and about 10 people who entered the building individually. There were also 2 groups of several families on a campus tour that passed through the building. When there were groups of people in the space or passing through, the area was fairly loud.

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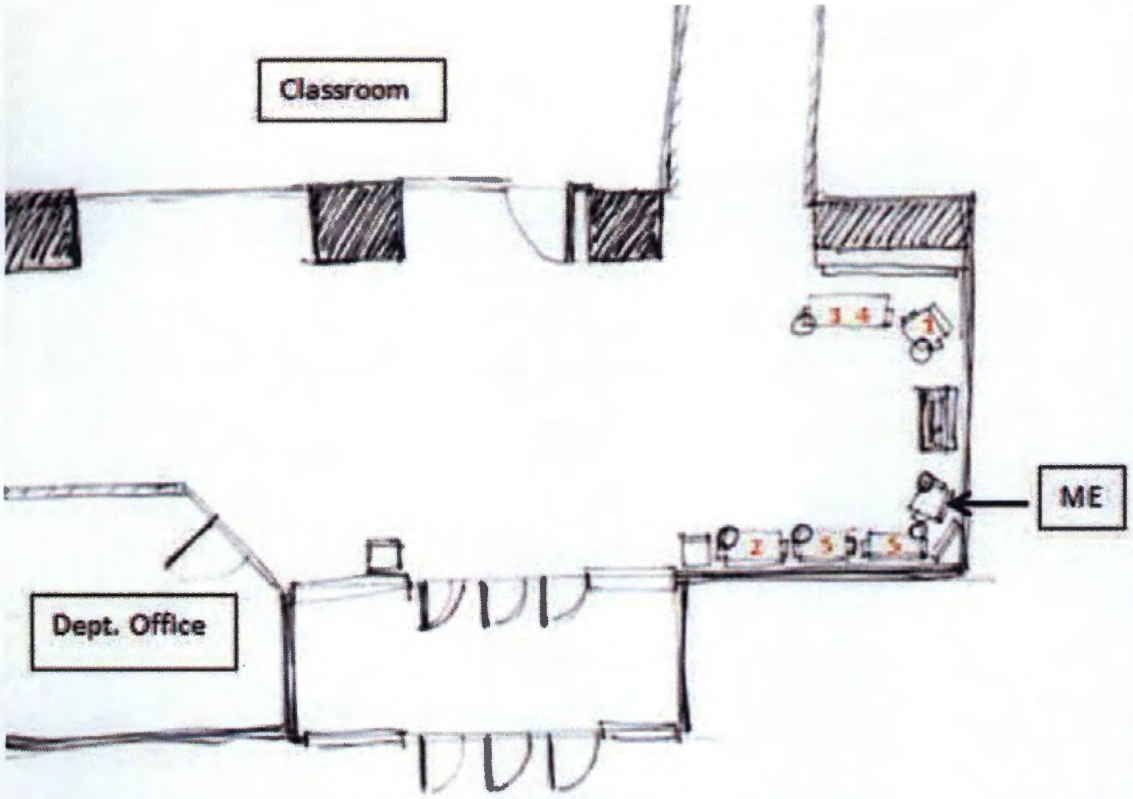
Wyneken Memorial Lutheran School



USER	LOCATION OF USER	AMOUNT OF TIME	ACTIVITIES
1. Boy- student	Corner chair	10 minutes	Watching television- waiting for class
2. Girl- student	Double couch by window	5 minutes	Waiting for class-using phone
3. 2 girl students	Couch by display case	25 minutes	Talking about a class project
4. Girl- student	Corner chair after #1 boy	10 minutes	Studying and eating a snack
5. 3 girl students	Couches by windows	15 minutes	Talking-waiting for next class

Observation Information for 2nd visit, December 3, 2014
11:00 AM- 11:30 AM

This day was a little busier after 11:00, because there were a few groups that came and gathered and talked about final projects or classes. People who were not in groups were either studying, on their phone, or watching the television. The TV was set to a news station, so it didn't hold many people's full attention for long, and was not set loud enough to overpower the individual conversations. Many more people also entered and exited the building during this time, most likely to go to and from lunch.

This space was not really decorated in any way and did not particularly draw the eye when passing through. Since it was not loud and busy, I think more people were drawn to it as a place to sit and wait for their classes and relax for a few minutes. There are also small swivel tops on the seating to use for books or laptops.

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"A CRITICAL REVIEW OF ELEMENTARY SCHOOL DESIGN" Amy Cole

This information is a master's thesis for interior design, focusing on analyzing the design of elementary schools. The author chooses two schools to compare, an open plan building and a "factory model" school building. The two models are analyzed in how they function on a large scale as a whole institution, and how individual spaces and classrooms function. Also discussed is the importance of understanding the teaching methodologies being utilized in the school and how those relate to the teaching environment. This thesis analyzes each classroom and gathering area and how they are being effectively or not effectively used, and also goes on to discuss each individual element in the rooms, such as windows, artificial lighting and desk layout, and how this effects the teaching methods and children's learning.

"UNIVERSAL DESIGN IN ELEMENTARY AND MIDDLE SCHOOL" Margaret Flores

This article addresses The Association for Childhood Education International's (ACEI) mission to provide all students with access to learning materials in an environment that is beneficial to them. With the increase in diverse learning needs, it is important to design spaces that foster all types of development in students. When designing for the present and future needs of students, it is necessary to incorporate technology and learning utensils in a way that will benefit a wide range of abilities and not leave anyone out. Special additions and design elements can be added to help students reach their full potential and be able to use the learning tools more independently in the future. Volume of space and layout should also offer ease of maneuverability and activity, without having to exert unnecessary energy for those with impairments or who use wheelchairs.

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INTERNATIONAL CODE COUNCIL (International Building Code)

Code officials came together internationally to address the need for a modern, up-to-date building code that dictates the design and installation of building systems based on performance. TheInternational Building Code® is designed to meet these needs through model code regulations that safeguard the public health and safety in all communities, large and small. This complete building code establishes minimum regulations for building systems using prescriptive and performance-related provisions. It is founded on widely used and accepted principles that make possible the use of new materials and new building designs. The 2006 edition is fully compatible with all the International Codes® (I-Codes®) published by the International Code Council (ICC)®, including the ICC Electrical Code®, International Energy Conservation Code®, International Existing Building Code®, International Fire Code®, International Fuel Gas Code®, International Mechanical Code®, ICC Performance Code®, International Plumbing Code®, International Private Sewage Disposal Code®, International Property Maintenance Code®, International Residential Code®, International Wildland-Urban Interface Code™ andInternational Zoning Code®.

"ELEMENTARY SCHOOLS" Ellen Larson Vaughan

This article addresses the design of elementary schools and how these buildings have a profound impact on all children. The primary school environment is what shapes the child from a young age, and can have a positive influence on their learning or an adverse effect. As teachers perform their duties and children are taught, they are influenced and stimulated by the light, color, texture, scale, and navigation of their surroundings. Each age group of students requires different environments and spaces to help them flourish academically and socially, and sometimes spaces must be adaptable to accommodate children of many ages. The navigation and layout of the school must make the students feel comfortable and confident while also promoting safety and security for everyone in the building.

WYNEKEN MEMORIAL LUTHERAN SCHOOL

The website and information about the school I am designing is important to the program because it helps establish essential information for solving the design problems. School information such as number of students, faculty, and current activities will benefit the design. Information on current activities will aide in observing and recording the spaces that are needed for special events. This website can also provide me with photos of how classrooms and other spaces are being utilized on a daily basis by students and faculty.

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THE DESIGN OF ELEMENTARY SCHOOLS

This article developed from a presentation EE&K Principal Sean O'Donnell, AIA, LEED AP gave at the Inter-American Development Bank's 2-day workshop in Santiago, Chile in late September. The workshop engaged the vice-ministers of education from the region and top experts on Education and Infrastructure from around the world in a dialogue on the Infrastructure in the 21st Century and Learning. A 21st-century elementary school is a complex system of environments that may need to address a wide variety of educational, social, recreational, environmental, and community needs. This article seeks to explain how we can plan new elementary schools that will be effective now and in the future to serve the children and community. The article discusses how to create a child-scaled environment, foster flexible classrooms, extend learning beyond the classroom, employ subtle security, engage the community, and establish a civic presence.

SPACE IMPACTS LEARNING

Trung Le's recommendations for using space to help transform teaching and learning include: change the language; eliminate "classroom" from vocabulary and talk about learning activities and settings; plan a diversity of agile spaces for learning, because no one space can truly be "multipurpose"; accept that creativity isn't just for the arts, and process isn't just for the sciences. Find the collisions; put the users, the teachers and the students in control of their space, furniture, technology and digital tools; create spaces at every level that look more like kindergarten and are experiential, interactive, collaborative, active, and exciting.

LEARN FOR LIFE. NEW ARCHITECTURE FOR NEW LEARNING

This article talks about a diverse collection of inspiring architecture and interiors that support progressive models of acquiring knowledge. New interpretations of kindergartens, schools, universities, and libraries are featured along with architecturally innovative offices and conference rooms. These examples are rounded out by more experimental projects that offer further perspectives on the rapidly evolving topic of how best to learn in the new millennium.

The groundbreaking spaces promote learning by inspiring, providing us with helpful tools, and facilitating opportunities for productive cooperation and the exchange of ideas within groups. This book makes clear that the creative use of architecture and interior design not only provides a new physical framework for acquiring knowledge, but also revitalizes and advances the process of learning as a whole.

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RESEARCH BASED DESIGN OF AN ELEMENTARY SCHOOL

This research paper examines current learning styles and teaching methods in order to suggest a new form of learning environment for young students. The author discovered features such as different activity settings and small group activities aimed at enhancing learning that resulted from the participation of students, teachers and parents in the design of the Gibsonville Elementary School. Teachers, working in small groups, compared different classroom arrangements along with criteria to compare and evaluate each alternative and unanimously selected an "L" shape classroom, which became the basis for the design of the school. Another critical design feature that emerged from the teacher workshop was direct access from each classroom to the outdoors, allowing teachers to create outdoor classrooms. He discusses his final design which featured four academic houses of six L shaped classrooms each around an open courtyard to provide a resource for students, parents, and teachers to collectively explore and maintain out-door environmental themes. He also describes how a post-occupancy evaluation helped discover the most effective arrangement for the furniture in the L-shaped classrooms.

10 CURRENT SCHOOL FACILITY FEATURES THAT ARE OBSOLETE

This article looks at school facility features that are obsolete today and yet are still in wide use: departmental organizations; learning in prescribed spaces; school corridors; traditional school libraries; computer labs; gyms without natural daylight; teacher centered classrooms; isolate classrooms; institutional food service; and large gang restrooms. Once we recognize these ineffective features that keep being included, we can change and improve the interiors to better suit the needs of the children and teachers.

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Steelcase Active Learning Case Study: How Classroom Design Affects Student Engagement

The success of any student is influenced by many variables. Academic studies have investigated several of them, from socioeconomic background to internal motivation to the influence of different teaching styles. Still often overlooked or underemphasized is the role of classroom design. New data from ongoing Steelcase Education studies shows that classrooms designed for active learning—i.e., where physical space supports a focus on engaging experiences for students and faculty— have a significant effect on student engagement. The results of the beta study and the following term's aggregated data revealed that classrooms intentionally designed to support active learning increased student engagement on multiple measures as compared to traditional (i.e., row-by-column seating) classrooms.

NCEF Relevant Codes and Standards

National Clearinghouse for Educational Facilities (NCEF)—Managed by the National Institute of Building Sciences, NCEF is the largest source of school facilities information in the world. NCEF provides information on planning, designing, funding, building, improving and maintaining safe, healthy, high performing pre-kindergarten through grade 12 schools and higher education facilities.

Planning to Learn: The Role of Interior Design in Educational Settings

American children spend a significant amount of time in a classroom setting. Many of these environments are in older buildings with outdated environmental systems such as heating and cooling, lighting, sound, or other acoustical controls student performance in school has been shown to have a relationship to the quality of the building. Sensory stimulation can both enhance and detract from the learning process of a young child. Visual, tactile, and auditory senses are crucial in learning and need to be considered in the design of the built environment. Many teachers and students, however, are coping with inadequate classroom spaces, outdated buildings, and deteriorating interiors. Poor quality environments can create learning barriers such as impaired concentration for many students who will be distracted by negative attributes in these enclosed interior spaces. These impacts are especially significant for younger children in elementary school settings who are more susceptible to negative environmental stimulation.

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The client needs to have an updated space with better functioning HVAC system and bathrooms. Some spaces in the old wing also need to be reconfigured for better use of space and better way finding. The users of the space move around a lot from classroom to classroom but many extra rooms are not used effectively. There are also large multipurpose public spaces that need to be rearranged to be used more effectively without extra equipment getting in the way. One issue that may arise would be budget and timeline. Their budget is going to be very limited and there may also be an issue completing any construction during the short summer months.

	Requirements	Preferences
Students	Clean, safe places to learn. Rooms need effective HVAC systems	An updated designed space to promote learning and creativity
Teachers	Plenty of useable space for teaching purposes and storage. Activity specific spaces. Design that promotes innovative teaching	Updated materials in teaching areas and changing unused spaces into accessible and productive ones
Parents	Safe, clean, and healthy environment for their children to learn. Building that is easily navigable	Updated and nice materials throughout. Spaces for extracurricular and other specialized programs

Madeline Albert
Honors Thesis

Project Advisor:
Prof. Reza Ahmadi

Wyneken Memorial Lutheran School

ISSUES	GOALS
COMFORT	Students and teachers should feel comfortable and at ease to promote better learning and interaction
MOOD/AMBIENCE	Students, teachers, and parents should have a positive response upon entering the building that promotes learning in the facility. People who are in the space should feel calm and have a positive change of attitude, which ties in with the school's goals of welcome and ministry.
ECONOMY	Quality of construction and new materials should create pleasant and productive spaces that are completed in timely fashion within budget.
FLEXIBILITY	Spaces should allow flexibility of use for multiple purposes unless they are a devoted classroom. People in the space will be able to change the space to their needs.
CIRCULATION	Circulation of students, teachers, and parents throughout the building will be simple and effective. Circulation in the large multipurpose spaces will be set up effectively for when large events are held.
BEHAVIOR SETTINGS	Physical settings of classrooms and teaching spaces will not be distracting to users but promote further education.
MAINTENANCE	Design of spaces and new materials need to be easily cleanable to maintain quality and cleanliness throughout the whole building.
INTERACTION	Arrangement of newly designed spaces will promote learning and collaborative interaction between students. Spaces for teachers and parents will foster social interaction and sharing of ideas between those adults, which will in turn help the students and school community.

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ISSUES	FACTS
COMFORT	Many spaces that are not classrooms are very sterile and smooth-surfaced and not very wel coming.
MOOD/AMBIENCE	The sterile environment doesn't always promote a positive mood, except for the classrooms, which the teachers adapt and decorate to make more welcoming.
ECONOMY	The school doesn't often have a large budget for remodeling, and they also have a very small timeline for construction and improvements, because the building is often used for events throughout the summer.
FLEXIBILITY	The large multipurpose areas are used for many rea sons and have a lot of equipment and tables that need to be stored. Many tables are just stored along side the wall and can be an eyesore.
CIRCULATION	Circulation from the classrooms to the main area where the kids are picked up is often overcrowded and chaotic. Traffic to the 2 large event areas is clear from the entrances but the vestibules and waiting areas by the entrance are overcrowded and block the entrance.
BEHAVIOR SETTINGS	Students don't always react well and can be uncontrolled in a large space without smaller activity pockets
MAINTENANCE	Regular maintenance is already performed on existing VCT flooring but a large amount of maintenance is not possible, because there is usually just 1 janitor for the whole facility
INTERACTION	Interaction in the public areas for waiting can be difficult because there is virtually no seating. People waiting have to stand and large groups of students waiting for their parents have to sit on the floor in the lobby.

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Prototypical Sketches and Criteria Matrix

Wyneken Memorial Lutheran School, Decatur, IN

	Square Footage	Adjacencies	Public Access	Daylight/ View	Privacy	Plumbing/ Spec. Equip.
RM 101 Lobby	915 SF	Rm 102 Office	Yes	Daylight and view	None	None
RM 404 Computer Rm	669 SF	Library, 8th Grade	No	Both	None	Computer/ electrical
RM 207 Boys RR	500 SF	Pre-K thru 2nd grade rooms	Yes?	neither	Yes	Toilets, sinks
RM 205 Girls RR	510 SF	Pre-K thru 2nd grade rooms	Yes?	neither	Yes	Toilets, sinks
RM 204 Kindergarten	1125 SF	Pre-K, 1st, 2nd	No	Daylight, no view	No	Toilet and sink
RM 211	946 SF	Pre-K thru 2nd grade rooms	No	Daylight, no view	No	None
RM 203 Pre-K	924 SF	K, 1st 2nd	No	Daylight and view	No	Toilet and sink
RM 403 Library	908 SF	Classrooms	No	neither	No	Computer equipment
RM 210 Resource Rm	967 SF	Classrooms	No	Daylight, no view	No	None
RM 201 1st Grade	930 SF	Pre-K, K, 2nd, RR 205/207	No	Daylight, no view	No	None
RM 202 2nd Grade	920 SF	Pre-K, K, 1st, RR 205/207	No	Daylight and view	No	None
RM 303 Storage	112 SF	Child Care	No	neither	No	None
RM 310 Child Care	602 SF	Door #10	Yes	Daylight, no view	Yes	Toilet and sink
RM 302 Boys RR	200 SF	Upper grade classrooms	Yes?	Daylight, no view	Yes	Toilets, sinks
RM 301 Girls RR	170 SF	Upper grade classrooms	Yes?	Daylight, no view	Yes	Toilets, sinks

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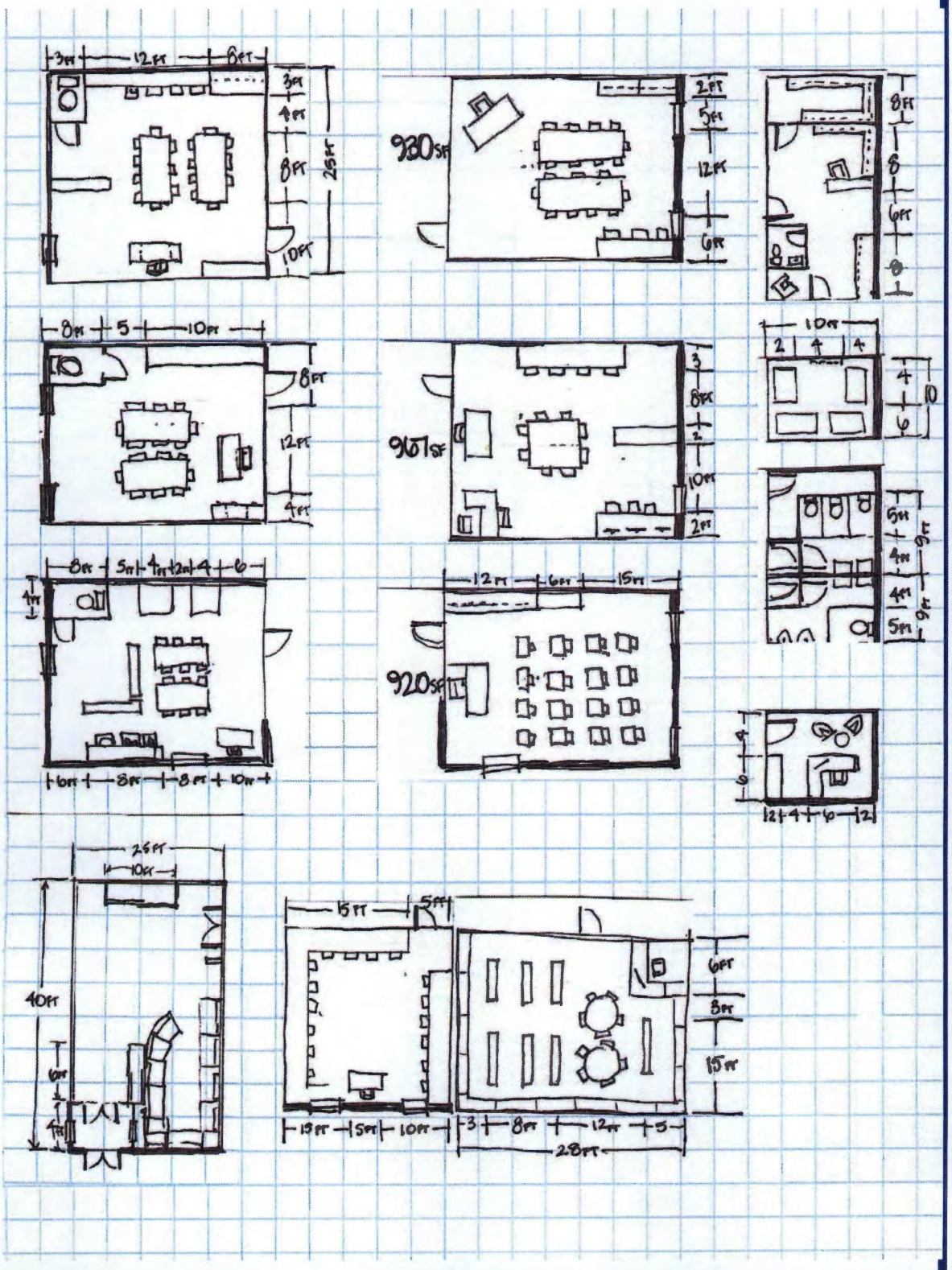

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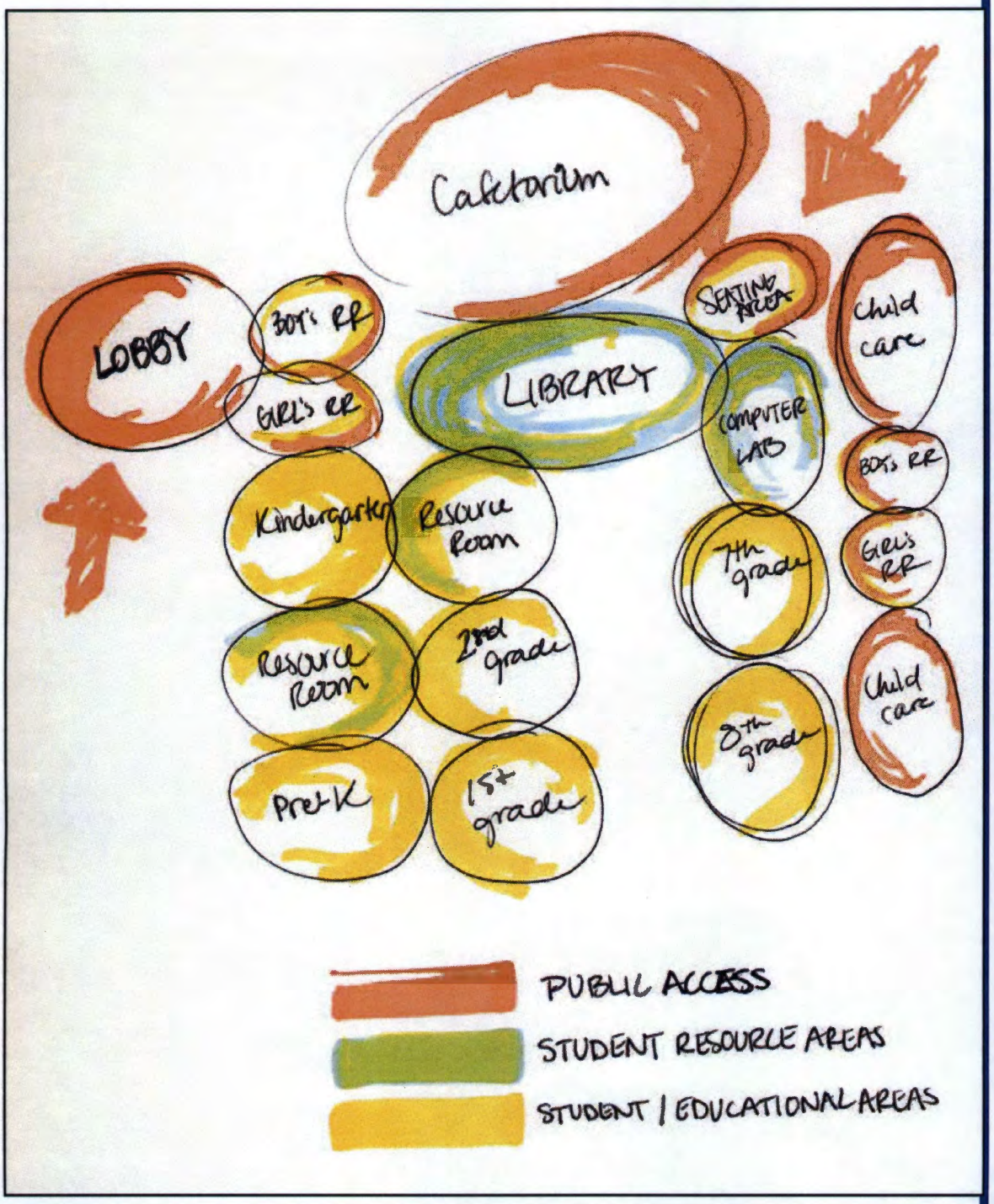
Prototypical Sketches

Wyneken Memorial Lutheran School



After information was collected by all the previous methods shown in the program, this bubble diagram was created to begin the design process. the various colors and bubbles show how the spaces may be arranged based on the information learned about Wyneken and the needs of the faculty and students.

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Bubble Diagram of Spaces

Wyneken Memorial Lutheran School

In conclusion, many of the problems discovered and captured in this program can be solved by the reallocation of spaces to create a more functional school. Expansion of essential spaces and creation of seating areas will improve the useability of the spaces, and material and finishing updates will improve the space as a whole. Research and interviews continued to be employed during the design process in order to create a space that fosters educational growth for all students and teachers at Wyneken Memorial Lutheran School.

The completed design and construction documents for the renovation can be found on the enclosed CD for reference. The use of color, texture, and new materials brought the new spaces to life and created learning environments that are pleasant to occupy. I believe these plans would serve Wyneken well in years to come, as they expand their horizons with new teaching methods and are able to educate as many children as possible.

Conclusion

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